WHAT IS CLAIMED IS:

1. An isolated nucleic acid selected from the group consisting of:

(a) a nucleic acid comprising the nucleotide sequence set forth in SEQ ID NO: 1;

(b) a nucleic acid comprising a nucleotide sequence that encodes the amino acid sequence of SEQ ID NO: 2; and

(c) a nucleic acid comprising an antisense nucleotide sequence corresponding to a nucleotide sequence of (a) or (b).

2. The isolated nucleic acid of claim 1, wherein the nucleic acid is DNA.

3. The isolated nucleic acid of claim 2, wherein the nucleic acid is a cDNA.

4. The isolated nucleic acid of claim 2, wherein the nucleic acid is a genomic DNA.

5. The isolated nucleic acid of claim 1, wherein the nucleic acid is RNA.

6. The isolated nucleic acid of claim 5, wherein the nucleic acid is mRNA.

7. The isolated nucleic acid of claim 1, wherein the nucleic acid is a fusion gene.

8. A vector comprising the nucleic acid of claim 1 operably linked to a promoter that controls expression in a plant cell.

9. The vector of claim 8, wherein the promoter is a 35S promoter.

10. A method of enhancing organ development in a plant, comprising:

transforming a plant cell with at least one nucleotide sequence operably linked to a promoter that controls expression in a plant cell, wherein the nucleotide sequence is selected from the group consisting of:

(a) a nucleic acid comprising the nucleotide sequence set forth in SEQ ID NO: 1; and

(b) a nucleic acid comprising a nucleotide sequence that encodes the amino acid sequence of SEQ ID NO: 2; and

cultivating the cell into a plant.

11. The method of claim 10, wherein the promoter is a 35S promoter.

12. The method of claim 10, wherein the plant is Arabidopsis.

13. The method of claim 10, wherein the organ is a lateral organ.

14. The method of claim 13, wherein the lateral organ is a leaf.

15. The method of claim 13, wherein the leaf is a rosette leaf.

16. The method of claim 10, wherein the organ development is organ growth.

17. The method of claim 16, wherein the growth is enhanced by about 50% to about 120%.

18. The method of claim 10, wherein the organ is a floral organ, an inflorescence stem, or a silique.

19. The method of claim 10, wherein the enhanced development is a longer hypocotyl in the in a de-etiolated seedling of the plant.

20. The method of claim 10, wherein the enhanced development is delayed flowering.

21. The method of claim 10, wherein the enhanced development is an increase in seed number in a silique of the plant.

22. The method of claim 21, wherein the increase in seed number is about 20%.

23. The method of claim 16, wherein the enhanced organ growth is a result of increased cell number.

24. The method of claim 23, wherein the increase in cell number is about 30%.

25. The method of claim 10, wherein the enhanced development is extension of growth duration.

26. The method of claim 25, wherein the extension is due to extended cell proliferation.

27. A method of inhibiting organ development in a plant, comprising:

transforming a plant cell with at least one nucleotide sequence operably linked to a promoter that controls expression in a plant cell, wherein the nucleotide sequence is selected from the group consisting of:

(a) an antisense nucleotide sequence corresponding to the nucleotide sequence set forth in SEQ ID NO: 1; and

(b) an antisense nucleotide sequence corresponding to a nucleotide sequence that encodes the amino acid sequence of SEQ ID NO: 2; and

cultivating the cell into a plant.

28. The method of claim 27, wherein the promoter is a 35S promoter.

29. The method of claim 27, wherein the plant is Arabidopsis.

30. The method of claim 27, wherein the organ is a lateral organ.

31. The method of claim 30, wherein the lateral organ is a leaf.

32. The method of claim 31, wherein the leaf is a rosette leaf.

33. The method of claim 31, wherein the organ development is organ growth.

34. The method of claim 33, wherein the growth is decreased by about 20% to about 60%.

35. The method of claim 27, wherein the organ is a floral organ, an inflorescence stem, or a silique.

36. The method of claim 27, wherein the inhibited development is a shorter hypocotyl in a de-etiolated seedling of the plant.

37. The method of claim 27, wherein the inhibited development is earlier flowering.

38. The method of claim 27, wherein the inhibited development is a decrease in seed number in a silique of the plant.

39. The method of claim 33, wherein the inhibited organ growth is a result of decreased cell number in the organ.

40. The method of claim 39, wherein the decrease in cell number is about 20%.

41. The method of claim 27, wherein the inhibited development is a decrease in growth duration.

42. A transformed plant cell having stably incorporated into its genome at least one nucleotide sequence operably linked to a promoter that controls expression in a plant cell, wherein the nucleotide sequence is selected from the group consisting of:

(a) a nucleic acid comprising the nucleotide sequence set forth in SEQ ID NO: 1;

(b) a nucleic acid comprising a nucleotide sequence that encodes the amino acid sequence of SEQ ID NO: 2; and

(c) a nucleic acid comprising an antisense nucleotide sequence corresponding to a nucleotide sequence of (a) or (b).

43. The cell of claim 42, wherein the promoter is a 35S promoter.

44. The cell of claim 42, wherein the plant is Arabidopsis.

45. A transgenic plant having stably incorporated into its genome at least one nucleotide sequence operably linked to a promoter that controls expression in a plant cell, wherein the nucleotide sequence is selected from the group consisting of:

(a) a nucleic acid having the nucleotide sequence set forth in SEQ ID NO: 1;

(b) a nucleic acid having a nucleotide sequence that encodes the amino acid sequence of SEQ ID NO: 2; and

(c) a nucleic acid having an antisense nucleotide sequence corresponding to a nucleotide sequence of (a) or (b).

46. The plant of claim 45, wherein the promoter is a 35S promoter.

47. The plant of claim 45, wherein the plant is Arabidopsis.

48. A seed of the plant of claim 45.

49. A method of regulating organ development in a plant, comprising:

transforming a plant cell with at least one nucleotide sequence operably linked to a promoter that controls expression in a plant cell, wherein the nucleotide sequence is selected from the group consisting of:

(a) a nucleic acid comprising the nucleotide sequence set forth in SEQ ID NO: 1;

(b) a nucleic acid comprising a nucleotide sequence that encodes the amino acid sequence of SEQ ID NO: 2; and

(c) a nucleic acid comprising an antisense nucleotide sequence corresponding to a nucleotide sequence of (a) or (b); and

cultivating the cell into a plant.

50. The method of claim 49, wherein the promoter is a 35S promoter.

51. The method of claim 49, wherein the plant is Arabidopsis.

52. The method of claim 49, wherein the organ is a lateral organ.

53. The method of claim 49, wherein the organ development is organ growth.

54. The method of claim 49, wherein the organ is a floral organ, an inflorescence stem, or a silique.

55. The method of claim 49, wherein the regulated organ growth is a result of altered cell division.

56. The method of claim 49, wherein the organ development is organ cell proliferation.

57. The method of claim 49, wherein the regulated organ growth is a result of altered cell number.

58. The method of claim 49, wherein the nucleotide sequence functions upstream of ANT.

59. The method of claim 49, wherein the nucleotide sequence functions downstream of AXR1.

60. A nucleotide sequence having greater than 50% homology to a full-length nucleotide sequence set forth in SEQ ID NO: 1, wherein said homologous nucleotide sequence encodes a polypeptide which retains biological activity of the full length sequence.

61. A method of enhancing organ development in a plant, comprising:

transforming a plant cell with at least one nucleotide sequence operably linked to a promoter that controls expression in a plant cell, wherein the nucleotide sequence is selected from the group consisting of:

(a) a nucleotide sequence having greater than 50% homology to a full-length nucleotide sequence set forth in SEQ ID NO: 1, wherein said homologous nucleotide sequence encodes a polypeptide which retains biological activity of the full length sequence; and

(b) a nucleotide sequence having greater than 50% homology to a nucleotide sequence that encodes the amino acid sequence of SEQ ID NO: 2, wherein said nucleotide

sequence encodes a polypeptide which retains biological activity of the full length sequence; and

cultivating the cell into a plant.

62. A method of inhibiting organ development in a plant, comprising:

transforming a plant cell with at least one nucleotide sequence operably linked to a promoter that controls expression in a plant cell, wherein the nucleotide sequence is selected from the group consisting of:

(a) an antisense nucleotide sequence corresponding to a nucleotide sequence having greater than 50% homology to the nucleotide sequence set forth in SEQ ID NO: 1; and

(b) an antisense nucleotide sequence corresponding to a nucleotide sequence having greater than 50% homology to a nucleotide sequence that encodes the amino acid sequence of SEQ ID NO: 2; and

cultivating the cell into a plant.

63. A transformed plant cell having stably incorporated into its genome at least one nucleotide sequence operably linked to a promoter that controls expression in a plant cell, wherein the nucleotide sequence is selected from the group consisting of:

(a) a nucleotide sequence having greater than 50% homology to a full-length nucleotide sequence set forth in SEQ ID NO: 1, wherein said homologous nucleotide sequence encodes a polypeptide which retains biological activity of the full length sequence;

(b) a nucleotide sequence having greater than 50% homology to a nucleotide sequence that encodes the amino acid sequence of SEQ ID NO: 2, wherein said nucleotide sequence encodes a polypeptide which retains biological activity of the full length sequence; and

(c) an antisense nucleotide sequence corresponding to a nucleotide sequence of (a) or (b).

64. A transgenic plant having stably incorporated into its genome at least one nucleotide sequence operably linked to a promoter that controls expression in a plant cell, wherein the nucleotide sequence is selected from the group consisting of:

(a) a nucleotide sequence having greater than 50% homology to a full-length nucleotide sequence set forth in SEQ ID NO: 1, wherein said homologous nucleotide sequence encodes a polypeptide which retains biological activity of the full length sequence;

(b) a nucleotide sequence having greater than 50% homology to a nucleotide sequence that encodes the amino acid sequence of SEQ ID NO: 2, wherein said nucleotide sequence encodes a polypeptide which retains biological activity of the full length sequence; and

(c) an antisense nucleotide sequence corresponding to a nucleotide sequence of (a) or (b).

65. A seed of the plant of claim 64.